

REMARKS

1. Introduction

Claims 1 and 3-7 are currently pending in this application. Claims 1 and 3-7 are rejected by the Examiner in the outstanding Office Action.

In particular, claim 1 is rejected under 35 U.S.C. § 102 (b) as being anticipated by European Patent Application 756,945 in the name of Salade, or under 35 U.S.C. § 103 (a) as being obvious over the same reference, or under 35 U.S.C. § 103 (a) as being obvious over U.S. Patent No. 5,700,550 in the name of Uyama et al.

The Applicants amended claim 1 to more clearly define the instant invention and to specify that *“a thickness of the substrate is in a range of 3 μm to 100 μm .”* Support for this amendment can be found in page 18, line 16, and in page 10, line 10, of the original application.

2. Rejection of Claim 1 under 35 U.S.C. § 102 (b)

The Examiner stated that European -945 in col. 7, lines 6-12 and 32-38 *“clearly discloses having the color shift effect and the hologram on opposite sides of the substrate.”*

The Examiner supported his conclusion with the following statements from the applied reference: (1) a transparent substrate has *“one face carrying a layer showing light interference effects while the opposite face carries a layer having a metallic effect”* (col. 7, lines 10-12); and (2) a hologram is *“sandwiched in between the information showing a color shift effect and the information showing a metallic effect,”* wherein it is *“without importance which effect is underneath or on top of the hologram or kinegram”* (col. 7, lines 32-38).

The Applicants respectfully disagree that the above statements lead to the conclusion that European -945 “*clearly discloses having the color shift effect and the hologram on opposite sides of the substrate.*”

The first statement relates to an embodiment described within col. 7, lines 6-19 and including a substrate with “*one face carrying a layer showing light interference effects while the opposite face carries a layer having a metallic effect*” (col. 7, lines 10-12). Notably, no hologram is specified as a part of the first embodiment, therefore it does not disclose “*the color shift effect and the hologram on opposite sides of the substrate.*”

The second statement relates to another embodiment described in col. 7, lines 32-43 as follows: “*According to a detail of another embodiment... the hologram or kinegram being sandwiched in between the information showing a color shift effect and the information showing a metallic effect. ... The metallic and/or color shift information is possibly overflowing onto the surface of the substrate itself without importance which effect is underneath or on top of the hologram or kinegram*” (underlining added). All three sandwiched together components: the hologram, the color shift effect, and the metallic effect information, are disposed on a same side of the substrate, wherein one of the metallic and color shift layers is on “*the surface of the substrate*” “*underneath ... of the hologram*” and another of the two layers is “*on top of the hologram.*” Therefore, in col. 7, lines 32-43 European -945 discloses the color shift effect and the hologram on a same side of the substrate and does not disclose “*the color shift effect and the hologram on opposite sides of the substrate.*”

The method in amended claim 1 recites, “*providing a light transmissive substrate having a first surface and an opposing second surface, the first surface having an optical interference pattern; ... the second surface being substantially planar ... wherein a thickness of the substrate is in a range of 3 μm to 100 μm .*” The applied reference does not disclose a substrate having an optical interference pattern, defined in the instant application as “*a diffraction grating pattern or a holographic image pattern*” (page 5, lines 14-15), on one surface thereof. To the contrary, European -945 teaches a hologram

separated from a substrate either by a color-shifting information layer or a metallic-effect layer.

Moreover, European -945 does not teach providing a substrate having all the features specified in amended claim 1: an optical interference pattern on a first surface thereof, a substantially planar second surface thereof, and a thickness is in a range 5 μm to 100 μm .

The second step in amended claim 1 is: “*forming a color shifting optical coating on the second surface of the substrate,*” wherein the second surface is opposing the first surface having the optical interference pattern. The applied reference discloses a color shifting effect on one side of a substrate, but not on a side opposite to the optical interference pattern/hologram. As it has been discussed above, the embodiment described in col. 7, lines 6-19 of European -945 does not include a hologram, and the embodiment of col. 7, lines 32-43 teaches a hologram on the same side of the substrate as the color shifting effect.

To summarize, European -945 in col. 7, lines 6-12 and 32-38 teaches neither the first step nor the second step in amended claim 1 of the instant application.

3. Rejection of Claim 1 under 35 U.S.C. § 103(a) over European -945

The Examiner rejected claim 1 under 35 U.S.C. § 103(a) over European -945 stating in section 2 of the outstanding Office Action that “*European -945 discloses the basic claimed method,*” which is a contention of anticipation and has been addressed above.

In section 5 of the outstanding Office Action, the Examiner said: “*European -945 is not concerned with the placement of the hologram with respect to the colour shifting layer, although the reference teaches they would be on opposite sides.*” The Applicants respectfully disagree with both parts of the Examiner’s statement. In particular, the Applicants submit that European -945 teaches the hologram “*sandwiched in between the information showing a colour shift effect and the information showing a metallic effect*” (col. 7, lines 35-37) and, therefore, is concerned with the placement of the hologram with

respect to the color shifting layer. The contention that the reference teaches the hologram and the color shifting being on opposite sides of a substrate has already been refuted above.

Further in section 5 of the outstanding Office Action, with respect to the holographic and color shift effects, the Examiner pointed out that “*the reference does not appear to place any distinction between the exact location of these effects and it is respectfully submitted that there should not be any.*” When disclosing a hologram “*sandwiched in between the information showing a colour shift effect and the information showing a metallic effect*” (col. 7, lines 35-37) on a same side of a substrate, European -945 indeed “*does not appear to place any distinction*” between the location of the color shift either “*overflowing onto the surface of the substrate*” and being “*underneath ... of the hologram*” or being “*on top of the hologram*” (col. 7, lines 40-43). Since the “*sandwiched*” structure described in the applied reference is quite different than the instant claims, there is no need to discuss if there should or should not be any difference in optical effects.

Relative to the instant claims, the issue of distinction between disposing the hologram and the color shift on a same or different sides of the substrate has not been discussed in European -945 because the reference teaches the hologram and the color shift only on a same side of a substrate and does not teach them on different sides of a substrate, therefore European -945 can not discuss “*any distinction*” therebetween. As to the point whether any distinction should be there or not, after analyzing exhibits provided by the Applicant, the Examiner stated: “*there admittedly exists some difference between the exhibits.*”

Moreover, the applied reference teaches away from the invention defined in amended claim 1. European -945 not only does not teach “*providing a light transmissive substrate having a first surface and an opposing second surface, the first surface having an optical interference pattern*” specified in amended claim 1, but teaches advantages of a “*very*

flat surface of the substrate” (col. 5, line 28,) so that “*the metallic effect is sensibly better*” (col. 5, line 27). (underlining added)

The Applicants have traversed the allegation that amended claim 1 of the instant application is obvious over the applied reference. In the event the Examiner disagrees, the Applicants would appreciate if the Examiner will set forth: (A) the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line number(s) where appropriate, (B) the difference or differences in the claim over the applied reference(s), (C) the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter, and (D) an explanation as to why the claimed invention would have been obvious to one of ordinary skill in the art at the time the invention was made.

4. Rejection of Claim 1 under 35 U.S.C. § 103(a) over Uyama

The Examiner maintained the § 103(a) rejection of claim 1 of the instant application over Uyama et al. referring to the previous Action dated Sept. 21, 2007, which referred, in turn, to earlier prosecution.

In the Office Action mailed January 17, 2007, the Examiner’s rejection was predicated upon the fact that there would be no difference between Uyama et al. where the interference pattern and the color shift coding were placed on the same side of the substrate and the claimed invention in which the interference pattern and the color shifting coding are separated by the substrate.

Specifically, the Examiner stated in the Office Action mailed January 17, 2007, the following:

“the placement of the color shifting layer with respect to the interference pattern would have no bearing on the appearance of the color shift property of the security article ... Since the substrate is transparent, it would not affect the color shifting property of the color shifting layer.”
(underlining added)

The Applicants then went to the effort and expense of preparing examples which would demonstrate the difference that resulted from the use of the claimed invention from that provided by Uyama et al.

On or about May 1, 2007, the Applicants filed a response to the Office Action including remarks and an Appendix including samples which compared the coating and hologram on opposites of the substrate as claimed with the coating and hologram located on the same side of the substrate. There were noticeable differences. The sworn declaration of the Declarant showed that there were differences between the claimed invention and the technology described in Uyama et al.

In the Advisory Action dated Sept. 21, 2007, the Examiner acknowledged the differences as described in the declarations. However, the Examiner concluded that the differences *“are simply not distinct enough to warrant patentability.”*

In section 2 of the outstanding Office Action the Examiner noted that *“Uyama et al is applied for reasons of record as set forth in paragraph 1 of the previous action,”* therein the Examiner stated that the exhibits *“made by placing the color shifting film and the hologram on opposite sides of the substrate--and that of the prior art--where they are on the same side”* were *“found to be not sufficiently different--certainly not different in kind, but at most, degree--to patentably distinguish over the prior art.”* Additionally, in section 5 of the outstanding Office Action, the Examiner wrote that *“there admittedly exists some difference between the exhibits, it is believed that these differences do not rise to the level of any unexpected result as Applicant appears to be suggesting.”* To summarize, the Examiner admitted the difference but classified it as difference of degree and not kind and, for this reason, not amounting to unexpected results.

The Applicants respectfully indicate the uncertainty of classifying which difference in properties is “in kind”, and which one – only “in degree.” Section 716.02 of MPEP advises: *“differences in properties cannot be disregarded on the ground they are differences in degree rather than in kind,”* and refers to *Ex parte Gelles*, 22 USPQ2d

1318, 1319 (Bd. Pat. App. & Inter. 1992) ("*we generally consider a discussion of results in terms of 'differences in degree' as compared to 'differences in kind' . . . to have very little meaning in a relevant legal sense*").

The invention of placing the hologram and color shifting structures on opposite sides of a substrate having a thickness in a range of "*3 μ m to 100 μ m*" produces an unexpected result. The Examiner stated in an earlier Action that there would be no difference from putting them on the same side, and in a further Office Action the Examiner admitted that there was a visual difference. Applicants respectfully disagree, and submit that the differences in the claimed invention patentably distinguish over Uyama et al.

5. Rejection of Claim 1 under 35 U.S.C. § 103(a) over Uyama and European -945

In section 5, the Examiner stated:

"In view of the 102 rejection made against claim 1 over European -945, arguments directed to unexpected results and the exhibits and declarations submitted in May of 2007 are believed to be moot. If the instant invention is anticipated by the prior art, a declaration is not probative in assessing patentability."

Since section 2 above refuted the contentions that European -945 anticipates the claimed invention, the newly cited reference has no bearing on the § 103(a) rejection over Uyama et al. The Applicants request reevaluation of "*the exhibits and declarations submitted in May of 2007,*" which the Examiner declared "*moot*" in view of the § 102 rejection over European -945.

6. Rejection of Dependent Claims under 35 U.S.C. § 103(a)

In sections 2-4 of the Office Action, the Examiner rejected claims 3-7 under 35 U.S.C. § 103(a). According to MPEP 2143.03: "If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious." Since nonobviousness of independent claim 1 has been demonstrated earlier in this paper, claims 2-7, dependent on claim 1, are also nonobvious.

In re Patent Application of:

Phillips et al.

Serial No. **10/706,142**

Filed: **11/12/2003**

7. Conclusion

The Applicants believe that rejections under 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a) are traversed in view of the reasons set forth. Reconsideration of the application is respectfully requested.

8. Information Disclosure Statement

Applicants submit herewith an Information Disclosure Statement filed under 37 CFR § 1.97(c). The requisite fees are being paid by EFS web.

Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees, to Deposit Account No. 50-1465 and please credit any excess fees to such deposit account.

Respectfully submitted,

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